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1968 JUN 13 15 30Z

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R 131515Z JUN 68
FM RUEADJU/NPIC WASH DC
TO RUEOJFA/DIAXX2 WASH DC
BT
S E C R E T [redacted] CITE NPIC 4001
ATTENTION: [redacted] DIA/XX-2
SUBJECT: EVALUATION OF GIANT SCALE MISSION S015.

1. QUALITY SUMMARY: MISSION S015, FLOWN ON 13 MAY 1968, PROVIDES IMAGERY TYPICAL TO PREVIOUS GIANT SCALE MISSIONS. CLOUDS AND HEAVY HAZE ARE STILL A MAJOR DEGRADING FACTOR. GROUND RESOLUTION FIGURES ARE EMPIRICAL ESTIMATES BASED ON EVALUATIONS OF SIMILAR SENSORS AND IMPLY A BAR AND A SPACE. AS USUAL, THE BEST GROUND RESOLUTIONS ARE LOCATED NEAR NADIR IN CLEAR AREAS AND THE ORIGINAL NEGATIVES WERE USED TO DETERMINE THE FOLLOWING RESOLUTIONS:
   A. RIGHT OPERATIONAL OBJECTIVE CAMERA [redacted]
   B. LEFT OPERATIONAL OBJECTIVE CAMERA
   C. RIGHT TECHNICAL OBJECTIVE CAMERA
   D. LEFT TECHNICAL OBJECTIVE CAMERA
2. CLOUDS DEGRADE OR OBSCURE 85 PERCENT OF THE IMAGERY.
3. THE MATERIAL WAS PROCESSED AT [redacted] THE ORIG-

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	FILE
	CABLE SEC.
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	IEG
	PROD
	SCIEN
	WEST
	EAST
	M&S
	PGM
	IAS
	DIA-XX4
	SPAD
	DIA-AP
	[redacted]
	CMX

ADVANCE CY SUPPRESSED PAGE TEXT

INAL NEGATIVES FROM THE OPERATIONAL AND TECHNICAL OBJECTIVE CAMERA ARE EVALUATED IN THIS REPORT. THE TERRAIN OBJECTIVE CAMERA WAS USED TO DETERMINE THE AREAS OF 80 PERCENT CLOUD FREE PHOTOGRAPHY AND WILL BE USED ON FUTURE MISSIONS TO DETERMINE MISSION RECORDER SYSTEM DATA CORRELATION.

4. ANALYSIS OF THE TECHNICAL OBJECTIVE MATERIAL.
   A. COMMENTS APPLICABLE TO BOTH CAMERAS:
      (1) APPROXIMATELY 80 PERCENT OF THE PHOTOGRAPHY WAS ACQUIRED ABOVE 30 DEGREES OBLIQUITY.
      (2) THERE ARE MINUS DENSITY STREAKS ASSOCIATED WITH THE PLATEN CONFIGURATION.
      (3) TWO PLUS DENSITY STREAKS ARE PRESENT THROUGHOUT THE MISSION, ONE IS LOCATED 2.0 INCHES FROM THE TITLED EDGE OF THE FILM AND THE OTHER 2.0 INCHES FROM THE NON-TITLED EDGE.
      (4) THE RESULTS OF THE STATIC CAN BE DETECTED ALONG BOTH EDGES OF THE NEGATIVE.
      (5) BANDING APPARENTLY INDUCED BY VIBRATION IS PRESENT THROUGHOUT THE MISSION.
      (6) IMAGERY APPEARS OUT-OF-FOCUS THROUGHOUT THE MISSION. THE LEFT CAMERA IS THE SAME ONE USED IN MISSION S014 WHICH

PROVIDED MUCH BETTER GROUND RESOLUTIONS THAN THIS MISSION.
      (7) EITHER SMEAR OR DOUBLE IMAGERY IS DETECTABLE ON THE

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[redacted]

Excluded from automatic downgrading and declassification

HIGH OBLIQUE FRAMES. (EXAMPLES: FRAME 617 (AR) AND FRAME 305 (AL)).

(8) PLUS DENSITY AREAS, CAUSED BY EXTRANEOUS LIGHT, EXTEND FROM THE EXTREME OBLIQUITY AREA IN THE FORMAT RADIALLY 5 TO 7 INCHES INTO THE FORMAT (EXAMPLE: AL 295, 297, 305. AR 284,288). THIS MAY BE CAUSED BY THE SUN STRIKING A PORTION OF THE OPTICS.

(9) THE DENSITY AND CONTRAST OF THE NEGATIVES ARE SATISFACTORY.

B. LEFT CAMERA (AL), S/N 64-07

(1) RANDOM MINUS DENSITY STREAKS PARALLEL TO THE MAJOR AXIS ARE PRESENT.

(2) RANDOM IRREGULAR SHAPED PLUS DENSITY FOG AREAS, PROBABLE PROCESSING INDUCED, ARE PRESENT INTERMITTENTLY IN FRAME 593 THROUGH THE END OF THE MISSION.

(3) A MYLAR SPLICE IS LOCATED BETWEEN FRAMES 584/585.

(4) CAMERA OFF/ONS OCCUR BETWEEN THE FOLLOWING FRAMES: 195/196, 226/227, 696/697, 816/817, 1050/1051, 1072/1073,

AND 1242/1243.

(5) LAST TITLED FRAME: 1411.

C. RIGHT CAMERA (AR) S/N 64-06

(1) RANDOM MINUS DENSITY STREAKS PARALLEL TO THE MAJOR AXIS ARE PRESENT THROUGHOUT THE MISSION.

(2) CAMERA OFF/ONS OCCUR BETWEEN FRAMES 232/233; 275/276; 723/729; 859/860; 1076/1079; 1103/1104; AND 1252/1253.

(3) THE LAST TITLED FRAME IS 1417.

5. ANALYSIS OF THE OPERATIONAL OBJECTIVE CAMERA MATERIAL:

A. COMMENTS APPLICABLE TO BOTH CAMERAS:

(1) THE DENSITY AND THE CONTRAST OF THE NEGATIVES APPEAR SATISFACTORY.

(2) THE FIRST 0.5 INCH OF SCAN FOR ALL FRAMES IS DEGRADED AND APPEARS OUT-OF-FOCUS.

(3) THE TIMING DOTS OF ALL FRAMES BEGIN 0.5 INCH AFTER THE START OF SCAN AND EXTEND 0.75 INCH BEYOND END OF SCAN. THEY ARE IMAGED JUST ALONG THE EDGE OF THE FORMAT.

(4) FOG, ASSOCIATED WITH ILLUMINATION OF THE DATA CHAMBER, ENCROACHES APPROXIMATELY 0.25 INCH INTO THE IMAGERY OF ONE OR BOTH ADJACENT FRAMES.

(5) THE LAST FRAME OF EACH CAMERA OPERATION DISPLAYS FOG PATTERNS NORMALLY ASSOCIATED WITH CAMERA-OFFS.

(6) THE EVENTS COUNTER NUMBER IS THE SAME AS THE TITLED FRAME NUMBER.

B. LEFT CAMERA (CL) S/N 4029:

(1) THE TIME TRACK IS NOT IMAGED ON FRAMES 001 THROUGH 004.

(2) CAMERA OFF/ONS: BETWEEN FRAMES 952/953, 1965/1966, AND 2218/2219.

(3) LAST TITLED FRAME: 2340.

C. RIGHT CAMERA (CR), S/N 4002:

(1) THE TIME TRACK WAS IMAGED FOR ALL FRAMES.
(2) CAMERA OFF/ONS: BETWEEN FRAMES 948/949, 1957/1958, AND 2210/2211.

5. MISSION RECORDER SYSTEM (MRS) CORRELATION:

A. TECHNICAL OBJECTIVE CAMERAS: A GOOD CORRELATION WAS ACHIEVED FOR BOTH CAMERAS. THERE IS A BIAS OF PLUS TWO SECONDS IN THE MRS OVER THE TIME IMAGED ON FRAME ONE OF THE RIGHT CAMERA AND A BIAS OF PLUS SIX SECONDS IN THE MRS OVER THE TIME ON FRAME ONE OF THE LEFT CAMERA. THE BIAS FOR BOTH CAMERAS REMAINS CONSTANT (WITHIN ONE SECOND) THROUGHOUT THE MISSION.

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B. OPERATIONAL OBJECTIVE CAMERAS: THE CORRELATION BETWEEN THE MRS AND THE CAMERAS IS POOR. MRS TIME LAGS AND THE TIME ON FRAME TWO (THE FIRST FRAME OF THE MISSION) IS SEVEN SECONDS AND WANDERS TO A PLUS 68 SECONDS AT THE END OF THE MISSION. THE LEFT CAMERA HAS A BIAS OF PLUS ONE SECOND AT THE BEGINNING OF THE MISSION AND A PLUS 78 SECONDS AT THE END.

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END OF MESSAGE